

Claim Amendments

Please amend the claims to be as follows.

1. (currently amended) A method of providing dynamic power redundancy for a system, the method comprising:
tracking a number of power supply units, n , that are presently in an up state;
determining dynamically a number of power supply units, N , that are presently needed to supply power to the system; [[and]]
generating an action alert to increase a margin of safety corresponding to a difference between n and N if the margin of safety reaches a minimum acceptable level;
measuring an actual electrical current used while the system is online to generate an analog current measurement signal;
converting the current measurement signal to digital current measurement data; and
utilizing the current measurement data in the dynamic determination of N ,
wherein N is calculated by dividing a measure of current drawn by the system over a specified period of time by a maximum current per power supply and rounding up.
2. (canceled)
3. (canceled)
4. (currently amended) The method of ~~claim 3~~ claim 1, wherein the measure of current drawn by the system comprises a peak current drawn by the system.
5. (original) The method of claim 1, wherein the tracking of n is performed using supply state tracking registers coupled to the power supply units.

6. (original) The method of claim 1, wherein the minimum acceptable level for the margin of safety comprises zero units.
7. (original) The method of claim 1, wherein the minimum acceptable level for the margin of safety comprises more than zero units.
8. (currently amended) The method of claim 1, wherein [[the]] action taken in response to said action alert comprises hot swapping of a failed component.
9. (currently amended) The method of claim 1, wherein[[the]] action taken in response to said action alert comprises cold swapping of a failed component.
- 10 (original) The method of claim 1, further comprising:
determining an initial value of N at design time based on expected power needs of the system.
11. (original) The method of claim 10, further comprising:
configuring the system with an initial margin of safety.

Claims 12-20. (canceled)

21. (currently amended) A power subsystem for providing dynamic power redundantly to system hardware, the power subsystem comprising:

means for tracking a number of power supply units, n , that are presently in an up state;

means for determining dynamically a number of power supply units, N , that are presently needed to supply power to the system hardware; [[and]] logic circuitry for generating an action alert to increase a margin of safety corresponding to a difference between n and N if the margin of safety reaches a minimum acceptable level;

means for measuring an actual electrical current used while the system hardware is online to generate an analog current measurement signal;

means for converting the current measurement signal to digital current measurement data; and

means for utilizing the current measurement data in the dynamic determination of N , wherein N is calculated by dividing a measure of current drawn by the system hardware over a specified period of time by a maximum current per power supply and rounding up.

22. (new) The power subsystem of claim 21, wherein the measure of current drawn by the system hardware comprises a peak current drawn by the system hardware.
23. (new) The power subsystem of claim 21, wherein the tracking of n is performed using supply state tracking registers coupled to the power supply units.
24. (new) The power subsystem of claim 21, wherein the minimum acceptable level for the margin of safety comprises zero units.
25. (new) The power subsystem of claim 21, wherein the minimum acceptable level for the margin of safety comprises more than zero units.